When in the course of growth there is some interference in the development of the left aortic channel and this upset is early enough so that the right fourth arch has not yet developed into the innominate and subclavian, this right fourth arch will take over the function of the left fourth arch and, with the right portion of the ventral and dorsal embryonic aorta, will form the adult aorta.

Interference with development of the left arch may take place anywhere along its course, and if the interference is such that the aortic root persists, with disappearance of the dorsal part of the embryonic arch to the origin of the ductus arteriosus, the result is a posterior diverticulum from which the left subclavian arises.

With the essential embryological changes in mind, the unusual roentgenographic findings noted in the case reported are more clearly understandable. The elevation of the aortic arch noted in the posterior-anterior view was due to the fact that the right main bronchus lay higher than the left. The right ascending aorta hooked up over the right bronchus before swinging to the left and therefore had to ascend higher than does a normal left aorta.

The absence of a descending vascular shadow on the left of the spine in the frontal projection and the clearance of the spine in the left oblique were both explainable on the basis of the descending aorta's course to the right.

The displacements of the barium-filled esophagus in the region of the aortic arch were due to the right and posterior position of the aorta. From a study of the type of arcs and measurements of the radii of them, the authors have concluded that the main anterior displacement was due to the arch and the dilated first part of the descending aorta and the displacement to the left was due to the descending aorta. In both of these displacements the impression of the diverticulum was visible on the filled esophagus.

The presence of the descending aorta in the right lung field was no more than would be expected in marked dilatation and elongation of an aorta falling to the right of the spine.

The aortic knob is usually absent in a right-sided aorta, and, when present, is probably due to a prominent diverticulum or an enlarged left subclavian artery. Upon studying the knob present in the case reported, it was noted that it was large and measurements led to the conclusion that it was a portion of the aortic arch which had been displaced to the left by the elongation and dilatation of the aorta.

SUMMARY

An unusual case of aneurysmal dilatation of a right-sided aorta and a brief review of its embryological aspects have been presented. In spite of the pronounced dilatation no definite symptoms were produced.

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Thorn in Body Causing Abscess After Twenty-one Years

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THE following case is reported because of the unusually long harboring and the ultimate spontaneous expulsion of a foreign body.

A 34-year-old veteran was first seen by the authors in August, 1947, at which time he was given pneumoperitoneum for pulmonary tuberculosis. While overseas in the army he had been hospitalized in Hawaii with the diagnosis of pulmonary tuberculosis and had been further hospitalized in San Fernando.

On January 14, 1948, he first complained of a swelling in an old scarred area on the medial aspect of the right leg about eight inches below the patella. Examination revealed a fluctuant, slightly tender mass about the size of an almond. Under 1 per cent procaine anesthesia an incision was made over this mass and approximately 4 cc. of seropurulent fluid escaped. A dry dressing was applied and the patient was instructed to apply hot compresses at home. Forty-eight hours later when the dressing was removed the pointed end of a foreign body was observed protruding from the incision. Removed, it was found to be a thorn three-quarters of an inch in length. Following removal of the foreign body all drainage ceased and the incision healed in a few days.

At this time the patient recalled the following facts: At the age of thirteen, 21 years previously, on a Halloween night he had fallen into a hawthorn bush, spraining the left knee and running a thorn into the knee above the patella. He had much difficulty in walking. At the time part of the thorn was pulled out but the remainder could not be withdrawn. The next morning he went to a physician who poulticed the knee with flax, and this treatment was continued daily for four months. The leg continued to swell. Movement was very painful and it was springtime before the patient was ambulatory. At one time an abscess apparently pointed just lateral to the patella, but this was never incised and it regressed spontaneously after heat from grass lanterns had been applied, and the leg improved thereafter. In 1941, 15 years later, the patient joined the Army and went through several campaigns. In October, 1941, an abscess the size of a small egg pointed about eight inches below the patella on the medial aspect of the tibia. This was lanced and drained for about one week and then healed spontaneously. The patient returned to duty and went through the Aleutian campaign and then to the South Pacific with no symptoms. In 1944 he was hospitalized for tuberculosis. There were no symptoms referable to the leg until January, 1948. The thorn had been in the body for 21 years and three months and had migrated in the leg for a distance of almost 12 inches.

SUMMARY

A foreign body apparently present for 21 years was the causative factor of a chronic, recurring abscess.

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